APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,036	08/31/2000	Jeffrey C. Micher	0307-0144P	4552

30593   7590   01/30/2006

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EXAMINER
SPOONER, LAMONT M

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
		09/652,036	MICHER ET AL.
Office Action Summary		Examiner	Art Unit	
		Lamont M. Spooner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 November 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-100</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-100</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 August 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   The Examiner acknowledges the Supplemental Declaration submitted March 17,

2005.

2.   Applicant's arguments filed 11/2/05 have been fully considered but they are not

persuasive.

In response to Applicant's arguments, O'Dell fails to teach the limitation of

"semantically meaningful" word chunks. The Examiner notes that O'Dell has

semantically meaningful word chunks. For example, in fig. 3 and p.9.lines 11-24, Wa

being a semantically meaningful word chunk. Or for example, if the input character

produced the two letter combination, "Hi", the word chunk has semantic meaning.

In response to Applicant's arguments regarding the motivation to combine

references, O'Dell distinguishes "wh" from "whe" by underlining "wh" in fig. 4. Mickunas

discusses distinguishing (C.3.lines 1-4, C.4.lines 18-27) as well, C.3.lines 46-64-

discusses prediction), page 24, para 1, O'Dell has a word prediction system, and the

Examiner finds Mickunas, abstract, to have a method of using the contents of a data

memory deice and data inputted by an operator to extract additional data from the

memory device until the operator determines that the device is displaying data he

desires to see.

Applicant's arguments with respect to the Official notice have been addressed in

the previous office action.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 1, 20, 39, 57, 72, and 86 (and all dependent claims) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 1 (and similarly stated, independent claims 20, 39, 57, 72 and 86) directs one skilled in the art to, "displaying at least one of selectable words..., receiving a selection of a displayed word..., displaying at least one of selectable words...,", however ... then, "in response to receiving selection of a displayed word chunk...". The applicant has omitted the possibility of receiving a selection of a displayed word chunk in the path that the input character provides for the displaying and selection of only words.

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claims rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner fails to locate anywhere in the disclosure "semantically meaningful" word chunks. On p.4.lines 4, 5, applicant states "A word

chunk preferable includes a word portion used in the formation of other words..." and

throughout the disclosure, the Examiner is unable to locate "semantically meaningful"

word chunks. On p.14.lines 1, 2 teaches of a word chunk, "zeit~", however fails to

mention "zeit~" as a semantically meaningful word chunk, it is simply a word chunk.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-3, 12, 20-22, 24,32, 39-41, 43 and 49 are rejected under 35 U.S.C.

103(a) as being unpatentable over O'Dell in view of Mickunas (US Patent No. 5,040,113

Aug. 13, 1991).

O'Dell and Mickunas are analogous art in that they involve word predictive

methods.

3.   Claims 1, 7-16, 18, 20, 26-35, 37, 39, 45-53, 55 are rejected under 35

U.S.C. 102(a) as being anticipated by O'Dell (WO 00/41062 Jul. 13, 2000).

As per **claims 1-3, 12, 20-22, 32, 39-41 and 49**, O'Dell discloses a word

prediction method comprising:

displaying at least one of selectable words and semantically meaningful word

chunks (Fig. 4 "wa") in response to receipt of an input character (Page 7 lines 30, 31,

Page 9 lines 11-36, fig. 4);

receiving a selection of a displayed word or semantically meaningful work chunk

(Fig. 4 selection of WH, for example "wa", or for example, "ma"); and

displaying at least one of selectable words and semantically meaningful word

chunks including a selected word chunk, in response to receiving selection of a

displayed semantically meaningful word chunk (Fig. 4 "WHI" "WHE" "WHA", -it is

inherent to have a storage area from which word or word chunks are retrieved from,

interpreted as a database, or for example, "War" or "mat").

a semantically meaningful word chunk includes a word portion used in the

formation of other words (page 5 liens 18-25-"we"-interpreted as a word portion used in

the formation of at least the word wetter, or "wa" in "war", "ma" in "mat", "hi" as in "hit").

O'Dell does not explicitly disclose:

a semantically meaningful word chunk includes a predetermined identifier,

identifying it as a word chunk.

However, Mickunas teaches having a word chunk which includes a word portion

used in the formation of other words and includes a predetermined identifier, identifying

it as a word chunk (C.4.lines 18-29-The words "a" or "I" can be used in the formation of

other words, such as aardvark, aback, and abacus, or intent, intention, respectively for

the words beginning with each stated word. In any ordinary word prediction, or auto-

completion method which separates the suggested completion portion from the input

character, by highlighting, or underlining or any other appropriate method of including a

predetermined identifier (and as defined by the applicant, word ... such as "a", now

interpreted as a word chunk, by applicant's definition "word chunk ... a word portion

used in the formation of other words..." (p.9 para 3), wherein the separation of word to completion suggestion by highlighting and underlining means is interpreted as identifying a word chunk, by the definition. As broadly claimed by applicant, even the suggested completion word "at" reads on the claims as written, wherein, the input character/word "a" provides the suggested completion "at", or "at" wherein the underlining or not underlining of the portion of the word which is used to create a new word, C.3-C.4). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to combine O'Dell with Mickunas. The motivation for doing so would have been to identify/distinguish a prefix to the user, which will have information concatenated upon in constructing a word (C.3.lines 43-61, C.4.lines 18-29).

O'Dell and Mickunas fail to explicitly disclose the predetermined identifier is a tilde. However, the feature of having a predetermined identifier to identify a word chunk is well known in the art. It would been obvious to one of ordinary skill in the art at the time the invention was made to use a tilde instead of one of the predetermined identifiers of Mickunas, wherein using the tilde without producing any new and unexpected result involves only routine skill in the art, see *In re Lindberg,93 USPQ 23 (CCPA 1952).*

As per **claim 7, 26 and 45**, O'Dell and Mickunas disclose all of the limitations of claim 1, upon which claim 7 depends. O'Dell further discloses:

the input character is an alphabetic character (Page 9 lines 14-16).

As per **claim 8, 27 and 46**, O'Dell and Mickunas disclose all of the limitations of claim 1, upon which claim 8 depends. O'Dell further discloses:

the input character includes a symbol (Fig 8 item 76).

As per **claim 9 and 28**, O'Dell and Mickunas disclose all of the limitations of

claim 1, upon which claim 9 depends. O'Dell further discloses:

the input character includes a symbol sequence (Page 17 lines 27-36, Page 18

lines 1-29).

As per **claim 10, 29, 30, and 47**, O'Dell and Mickunas disclose all of the

limitations of claim 1, upon which claim 10 depends. O'Dell further discloses:

the selection of a displayed word or semantically meaningful word chunk is

received from an input device

(Fig. 1 item 2, Fig. 4, Page 4 lines 11-13-touch screen palmtop).

As per **claim 11, 31, and 48**, O'Dell and Mickunas disclose all of the limitations

of claim 1, upon which claim 11 depends. O'Dell further discloses:

the words and semantically meaningful word chunks are in an agglutinated

language (Page 17 lines 27-36, Page 18 lines 1-29).

As per **claim 13, 33, and 50**, O'Dell and Mickunas disclose all of the limitations

of claim 1, upon which claim 13 depends. O'Dell further discloses:

the selectable words and/or semantically meaningful word chunks, displayed in

response to receiving selection of a displayed semantically meaningful word chunk,

include at least one additional semantically meaningful word chunk including the

previously selected semantically meaningful word chunk (Page 11 lines 12-25-work

screens are available chunk by chunk, for example, "h", "hi", "hit").

As per **claim 14, 34, and 51**, O'Dell and Mickunas disclose all of the limitations of claim 1, upon which claim 14 depends. O'Dell further discloses:

displaying, in response to receiving selection of a semantically meaningful word chunk including the previously selected semantically meaningful word chunk, at least one of selectable words and semantically meaningful word chunks including the word chunk including the previously selected semantically meaningful word chunk (Page 11 lines 12-25, Fig 7b items 64, 70, 72-chunk by chunk display, for example, "h", "hi", "hit").

As per **claim 15, and 52**, O'Dell and Mickunas disclose all of the limitations of claim 1, upon which claim 15 depends. O'Dell further discloses:

storing the displayable words and semantically meaningful word chunks in a database (Page 10 lines 25-32).

As per **claim 16, 35, and 53**, O'Dell and Mickunas disclose all of the limitations of claim 15, upon which claim 16 depends. O'Dell further discloses:

the step of storing includes storing at least one code in association with each word and semantically meaningful word chunk in the database (Page 9 lines 25-36-frequency codes).

As per **claim 18, 37, and 55**, O'Dell and Mickunas disclose all of the limitations of claim 16, upon which claim 18 depends. O'Dell further discloses:

the codes include frequency codes, with words and semantically meaningful word chunks associated with the input character and a relatively high frequency code being displayed before words and word chunks associated with the input character and a relatively low frequency code (Page 9 lines 25-36).

As per **claim 57**, O'Dell discloses a word prediction method comprising:

displaying at least one of selectable words and semantically meaningful word

chunks including an input character, in response to receipt of the input character (Fig. 4,

page 9 lines 11-36-page 10 lines 24, for example, "wa" or "hi" or "ma"); and

replacing the input character with a selected semantically meaningful word chunk

in response to receiving selection of a displayed word chunk (Fig. 4, Fig. 7a, 7b, page 9

lines 11-36-page 10 lines 24, the character "w" is replaced by a selected word chunk,

"wa", or for example "m" to "ma"), wherein the selected semantically meaningful word

chunk is subsequently used in place of the input character for further word prediction

(Fig. 7b-the word chunk "wh" is subsequently used for further word prediction in place of

the original input character, or for example, "wa" in war, or "ma" in "mat").

O'Dell does not explicitly disclose:

a semantically meaningful word chunk includes a predetermined identifier,

identifying it as a word chunk.

However, Mickunas teaches having a word chunk which includes a word portion

used in the formation of other words and includes a predetermined identifier, identifying

it as a word chunk (C.4.lines 18-29-The words "a" or "I" can be used in the formation of

other words, such as aardvark, aback, and abacus, or intent, intention, respectively for

the words beginning with each stated word. In any ordinary word prediction, or auto-

completion method which separates the suggested completion portion from the input

character, by highlighting, or underlining or any other appropriate method of including a

predetermined identifier (and as defined by the applicant, word ... such as "a", now

interpreted as a word chunk, by applicant's definition "word chunk ... a word portion used in the formation of other words..." (p.9 para 3), wherein the separation of word to completion suggestion by highlighting and underlining means is interpreted as identifying a word chunk, by the definition. As broadly claimed by applicant, even the suggested completion word "at" reads on the claims as written, wherein, the input character/word "a" provides the suggested completion "at", or "at" wherein the underlining or not underlining of the portion of the word which is used to create a new word, C.3-C.4). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to combine O'Dell with Mickunas. The motivation for doing so would have been to identify any prefix to the user, which will have information concatenated upon in constructing a word (C.4.lines 18-29).

As per **claim 58**, O'Dell discloses all of the limitations of claim 57, upon which claim 58 depends. O'Dell further discloses:

displaying at least one of the selectable words and semantically meaningful word chunks including a selected semantically meaningful word chunk, in response to receiving selection of the displayed word chunk (Fig. 7b-in response to receiving a selection of "wh", "which" is displayed, or for example, semantically meaningful word chunks "wa" in "war", or "ma" and "mat").

4.   Claims 4, 23, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Dell.

As per **claims 4, 23, and 42** O'Dell discloses all of the limitations of claim 1, upon which claim 4 depends. O'Dell does not explicitly disclose:

the words and semantically meaningful word chunks are in the German

language.

However, O'Dell teaches (Page 2 lines 34-36 and abstract) the method is

applicable to ideographic and non-ideographic languages, which includes German. The

Examiner takes official notice that German is considered a Western language. It would

have been obvious to one ordinarily skilled in the art at the time of the invention to

provide the word and semantically meaningful word chunks in the German language.

The motivation for doing so would have been to reduce typos and misspellings for

Western languages, from finding a word by selecting increasing complete words

(abstract).

5.   Claims 6, 17, 19, 25, 36, 38, 44, 54 and 56 are rejected under 35 U.S.C. 103(a)

as being unpatentable over O'Dell in view of Kadashevich et al. (herein referred to as

Kadashevich, US Patent No. 5,369,577 Nov. 29, 1994).

O'Dell and Kadashevich are analogous art in that they involve word predictive

methods.

As per **claims 6, 25, and 44**, O'Dell discloses all of the limitations of claim 1,

upon which claim 6 depends. O'Dell does not disclose:

displaying at least one morph of a selected word in response to receiving

selection of a displayed word.

However, Kadashevich teaches displaying at least one morph of a selected word

(C.7.lines 9-22). Therefore, at the time of the invention, it would have been obvious to

one ordinarily skilled in the art to combine O'Dell and Kadashevich. The motivation for

doing so would have been to eliminate redundancy in the database of words, while

providing all possible inflections of a word for user selection (C.4.lines 33-44).

As per **claims 17, 36 and 54**, O'Dell discloses all of the limitations of claim 16,

upon which claim 17 depends. O'Dell does not disclose:

the codes include morph codes, and wherein morphs of the selected word are

displayed in response to receipt of a selection of a displayed word including associated

morph codes.

However, Kadashevich teaches

the codes include morph codes, and wherein morphs of the selected word are

displayed in response to receipt of a selection of a displayed word including associated

morph codes (C.24.lines 20-57). Therefore, at the time of the invention, it would have

been obvious to one ordinarily skilled in the art to combine O'Dell with Kadashevich.

The motivation for doing so would have been to make use of the codes in order to

further morphologically analyze a word properly for further possible further processing to

receive a desired final result (C.17.lines 24-41).

As per **claim 19, 38, and 56**, O'Dell and Kadashevich disclose all of the

limitations of claim 17, upon which claim 19 depends. O'Dell further discloses:

the codes include frequency codes, with words and semantically meaningful

word chunks associated with the input character and a relatively high frequency code

being displayed before words and semantically meaningful word chunks associated with

the input character and a relatively low frequency code (page 9 lines 25-36, Fig. 4-"wa"

or for example "ma").

6.   Claims 59-61, 63-89, 91-100 fall within the scope the previously rejected claims,

and therefore are rejected.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

> Kim et al, A computational model of Korean Morphological Analysis: A prediction
>
> based approach, Kluwer Academic Publishers, Journal of East Asian Linguistics
>
> 5, pp 183-215, 1996, teaches predictive n-gram using morphemes with
>
> segmentation.

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lamont M. Spooner whose telephone number is

571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on 571/272-7602. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER

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1/16/06